WHAT IS CLAIMED IS:

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- 1. A medical handpiece for cutting a treatment site, comprising:
- a cutting tool having distal and proximal ends, and having an elongate flexible shank and a burr provided at said distal end of the cutting tool;

a generally tubular sheath for receiving the cutting tool therein, and having an elongate tube portion;

an interposed member interposed between the elongate tube portion of the sheath and the shank of the cutting tool; and

a handpiece body connected to the sheath, and detachably holding said proximal end of the cutting tool for transmitting driving force from a drive source to the cutting tool;

wherein said elongate tube portion of the sheath is malleable and deformable, and said shank of the cutting tool and said interposed member are deformable following malleable deformation of the elongate tube portion.

- 2. The medical handpiece of claim 1, wherein said interposed member is tubular and flexible.
- 3. The medical handpiece of claim 1, wherein said interposed member is made of a fluororesin, and acts as a sliding bearing for the shank of the cutting tool.

- 4. The medical handpiece of claim 1, wherein said cutting tool has a marker, and said sheath and/or said handpiece body has a marker of the same color as that of said marker on the cutting tool.
- 5. A cutting tool for use in the medical handpiece of claim 1, comprising:

a burr at a distal end of the cutting tool for cutting 10 a treatment site;

an elongate flexible shank extending proximally to the burr; and

a bearing contact portion positioned between the burr and the shank, and to be supported by a bearing in a medical handpiece when the cutting tool is mounted in the medical handpiece;

wherein said shank has a first section to be chucked in a handpiece body of the medical handpiece, and a second section having sufficient flexibility to be elastically deformed more easily than said first section.

6. The cutting tool of claim 5, wherein said second section has a diameter smaller than the diameter of the first section.

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